WHAT IS CLAIMED IS:

1. An ADSL system for transferring an analog audio signal of analog communication equipment and high speed digital data of high speed digital data equipment provided on the side of a subscriber, from and to a station, through one subscriber line, comprising:

an apparatus on the subscriber side in which an analog audio signal of the analog communication equipment is converted into a digital audio signal, the data together with the high-speed digital data is concentrated on lines in a way of time division, and supplied to the subscriber line after being modulated by an ADSL modem, while after a signal received from the station through the subscriber line is demodulated by an ADSL modem, the digital audio signal is converted in an analog audio signal and supplied to the analog communication equipment, and at the same time high-speed digital data is supplied to a high-speed digital data equipment; and

an apparatus on the station side in which a signal received from said apparatus on the subscriber side through the subscriber line is demodulated by the ADSL modem, thereafter the digital audio signal is converted into an analog audio signal, which is supplied to an analog telephone network, and at the same time high-speed digital data is supplied to a high-speed

digital data network, while an analog audio signal of the analog telephone network is converted into a digital audio signal, the data together with high-speed digital data of the high-speed digital data network is concentrated on lines in a way of time division, and supplied to the subscriber line after being modulated by the ADSL modem.

2. An ADSL system as set forth in Claim 1, wherein

said apparatus on the subscriber side converts each analog audio signal of a plurality of analog communication equipment into each digital audio signal and concentrates the data together with high-speed digital data on lines in a way of time division.

3. An ADSL system as set forth in Claim 1, wherein

said apparatus on the subscriber side and apparatus on the station side convert each digital audio signal as well as high-speed digital data into ATM cells, attach each destination address to the ATM cells, and concentrate the data on lines.

4. An ADSL system as set forth in Claim 1, wherein

said apparatus on the subscriber side converts

each analog audio signal of a plurality of analog communication equipment into each digital audio signal and concentrates the data together with high-speed digital data on lines in a way of time division, and

said apparatus on the subscriber side and apparatus on the station side convert each digital audio signal as well as high-speed digital data into ATM cells, attach each destination address to the ATM cells, and concentrate the data on lines.

5. An ADSL system as set forth in Claim 1, wherein

said apparatus on the subscriber side and apparatus on the station side divide each digital audio signal as well as high-speed digital data into fixed time slots and the data is supplied to the subscriber line after being modulated by the ADSL modem.

6. An ADSL system as set forth in Claim 1, wherein

said apparatus on the subscriber side converts each analog audio signal of a plurality of analog communication equipment into each digital audio signal and concentrates the data together with high-speed digital data on lines in a way of time division, and

said apparatus on the subscriber side and apparatus on the station side divide each digital audio

signal as well as high-speed digital data into fixed time slots and the data is supplied to the subscriber line after being modulated by the ADSL modem.

7. An ADSL system for transferring an analog audio signal of analog communication equipment and high speed digital data of high speed digital data equipment provided in an apparatus on a subscriber side, from and to an apparatus on a station side, through one subscriber line, in which

said apparatus on the subscriber side comprises

an AD/DA converter for converting an analog audio signal of the analog communication equipment into a digital audio signal or converting a digital audio signal into an analog audio signal, hence to supply the same to the analog communication equipment, and supplying the high-speed digital data to the high-speed digital data equipment,

a line concentrator for concentrating the digital audio signal and the high-speed digital data on lines in a way of time division, and

an ADSL modem for modulating the digital audio signal and the high-speed digital data and supplying the modulated signal to the subscriber line, and demodulating a modulated signal received from the station side through the subscriber line, while

said apparatus on the station side comprises

an ADSL modem for demodulating the modulated signal received from said apparatus on the subscriber side through the subscriber line and modulating a digital audio signal and high-speed digital data to be supplied to the subscriber line, and

a line concentrator for supplying the digital audio signal modulated by said ADSL modem to the analog telephone network as well as supplying the high-speed digital data to the high-speed digital data network, and concentrating the digital audio signal from the analog telephone network and the high-speed digital data from the high-speed digital data network on lines in a way of time division, then to send the data to said ADSL modem.

8. An ADSL system as set forth in Claim 7, wherein

said apparatus on the subscriber side comprises a plurality of the above-mentioned AD/DA converters corresponding to a plurality of analog communication equipment, and

said line concentrator in said apparatus on the subscriber side concentrates on lines each digital audio signal converted by the plurality of AD/DA converters, together with high-speed digital data, in a way of time division.

9. An ADSL system as set forth in Claim 7,

wherein

said line concentrators in said apparatus on the subscriber side and in said apparatus on the station side convert digital audio signals and high-speed digital data into ATM cells, attach each destination address to the ATM cells, and concentrate the data on lines.

10. An ADSL system as set forth in Claim 7, wherein

said apparatus on the subscriber side comprises a plurality of the above-mentioned AD/DA converters corresponding to a plurality of analog communication equipment, and

said line concentrators in said apparatus on the subscriber side and in said apparatus on the station side convert digital audio signals and high-speed digital data into ATM cells, attach each destination address to the ATM cells, and concentrate the data on lines.

11. An ADSL system as set forth in Claim 7, wherein

said line concentrators in said apparatus on the subscriber side and in said apparatus on the station side divide each digital audio signal and high-speed digital data into fixed time slots, and the data is

supplied to the subscriber line after being modulated by said ADSL modem.

12. An ADSL system as set forth in Claim 7, wherein

said apparatus on the subscriber side comprises a plurality of the above-mentioned AD/DA converters corresponding to a plurality of analog communication equipment, and

said line concentrators in said apparatus on the subscriber side and in said apparatus on the station side divide each digital audio signal and high-speed digital data into fixed time slots, the data is supplied to the subscriber line after being modulated by said ADSL modem.